

2003B094-US
Response to OA 11/15/05
Response Dated 2/21/06

REMARKS

Claims 1-24 were rejected. Claim 1 is amended. Support of this amendment can be found in paragraph [0020] of applicants' application.

Claim Rejections 35 USC § 112

Claims 1-24 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants thank Examiner and amend Claim 1 by reciting the step of "isomerizing said xylenes in said feed by contacting".

With the current amended claims, withdrawal of the rejection is respectfully requested.

Claim Rejections 35 USC § 103

Claims 1-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chu et al (US 4,899,011).

Applicants thank Examiner for pointing to the '011 patent. Claim 1 is amended to limit the amount of said first catalyst present in said catalyst system is greater than 55 percent and less than 90 percent by volume based on the sum of the volumes of the first catalyst and second catalyst.

Applicants submit that the catalyst system of applicants' invention shows surprising results as comparing to the catalyst system disclosed in '011 patent. Comparing with a catalyst system containing 50% or less by volume of first catalyst as disclosed by Chu et al., the advantages of applicants' invention include the following (Example 2 and the Table of applicants' application, comparing column B, C, D, and E):

- more para-xylene production;
- less heavy materials (C_{9+});
- lower xylene loss; and
- operation at lower temperature.

2003B094-US
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The higher para-xylene yield, lower xylene loss, and lower C₉+ yield using the process of the present invention results in a higher value product. The lower temperatures for the process of the present invention, e.g., process using a catalyst system containing at least 55 percent by volume of first catalyst, is also beneficial, because of longer catalyst cycle times and may be used in reactors that are limited by the necessity to operate at lower temperatures.

Applicant agrees with the Examiner that EB conversion in Table 1 (Chu et al.) is more than 30%. However, Applicants respectfully submit that the Equilibrium Approach, % P-xylene of the table 1 (Chu et al) are significantly lower than 100% (62.7%, 49.4%, and 54.0%) even at a temperature as high as 800°F.

With the current amended claims, withdrawal of the rejection is respectfully requested.

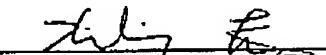
2003B094-US
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CONCLUSION

It is respectfully submitted that all claims 1-24 are in condition for allowance and favorable action thereon is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees that are required or credit any overpayment to Deposit Account No. 05-1712.

Respectfully submitted,

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